

I saw similar nests about a pool on Summerland Key. These birds were very abundant on the island off the north shore of Vaca Key. They were tame and many young were heard continually. Others were observed on No Name, Vaca, Grassy, Bahia Honda, Little and Big Pine and Sugar Loaf Keys.

30. **Quiscalus major.** BLACK BIRD.—Several brown birds, apparently this species, were seen on Summerland Key.

31. **Cardinalis cardinalis floridanus.** RED BIRD; RED ORIOLE. Marquesas, Boca Chica, Big Pine, No Name, Knight, Vaca, Grassy, Little Pine, Summerland, Cudjoe's and Snipe Keys. The familiar whistle of this bird was heard in most every place we visited though only occasionally could one catch a glimpse of the bird.

32. **Vireo noveboracensis maynardi.** SPARROW.—Boca Chica, Sugar Loaf, Big Pine, No Name, Knight, Grassy, Summerland and Cudjoe's Keys. Abundant and frequently in the mangroves.

33. **Mimus polyglottos.** MOCKER; MOCKING BIRD.—Key West, Boca Chica, Summerland and Cudjoe's Keys.

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A-BIRDING IN AN AUTO.

BY MILTON S. RAY.

THAT faithful friend, the horse, was forsaken this year (1905) for that modern, rapid but rather uncertain conveyance, the automobile. To be technical, our machine was a sixteen-horse-power double opposed cylinder Wayne touring car. The tonneau was replaced by a large locker which held sufficient supplies to sustain us almost indefinitely, should we leave the land of the storekeeper. The original plan was to enter the San Joaquin Valley from the west, via Dublin Pass and Livermore, but the early May rains willed it otherwise; so we embarked on a river boat, at a city pier, which took us as far as Stockton. The latter town lies at the mouth of this great level valley, which presents a very even type of country throughout its length. The central portion, for the most part, consists of either marshy waste or alkali-desert land, often as wide as thirty miles or more, and which is practically

treeless except along the river banks. The portion which surrounds this and lies adjacent to the foothills takes in nearly all the settled and cultivated districts and can boast of some fine oak and other timber.

May 10.—To Merced (and 10 miles beyond), 75 miles. Species and subspecies observed, 30.

Knowing (or at least hoping) our tour would be an extended one, we decided to list the species of birds found on the trip. Daylight broke a few miles from Stockton and as the river boat steamed up the slough, fourteen forms were counted, including the Western Martin, which we found in the town proper. In the time it usually took to harness the horses our motor-vehicle had carried us far outside the town limits. It was very pleasant travelling, for so swiftly and noiselessly did we glide along that the whole landscape, like a moving picture on a curtain, seemed rushing toward us. The recent rains had left but little trace on the well packed roads and with the exception of a hard pull through the famous sand bed near Livingston, which has caused many a chauffeur to borrow a team of horses, we had little to complain of. We called it a day's run to a point ten miles west of Merced, where, in a pleasant grove of trees along an irrigation ditch, we encamped for the night. Immense flocks of various blackbirds and finches were swinging over the miles of pasture lands, head-high with the rank growth of wild hay, weeds and mustard. A Black Phoebe had the honor of being the owner of the first nest we officially inspected. It was placed underneath a bridge over the ditch and was waiting for eggs.

May 11.—To Firebaugh, 58 miles. Additional species observed, 11.

Instead of continuing southward we decided to cross the valley to Los Baños, situated about thirty miles due west, across a broad stretch of marshy waste-land; as it promised to greatly increase the list with its wealth of water bird life, we did not heed the repeated warnings regarding the bad condition of the road. While for the first few miles the road was all that could be desired, it then so gradually and continuously passed from bad to worse that we were only deterred from turning back by the memory of the part we had passed. Sloughs crossed the road at will, and in the endless succession of hollows, ponds with sticky mud bottoms

usurped the road-bed. The region is locally known as the "hog-wallow" country and it certainly deserves its name. Water birds were unusually numerous. Black-necked Stilts were as abundant as fowls about a barnyard, and we were also favored with the occasional presence of the delicately colored and graceful American Avocet, while the hovering flocks of Forster and Black Terns above the tule patches reminded one of their great Sierran summer haunts. Immense bands of American White Pelicans, countless Cinnamon Teal, as well as other less abundant varieties, gave the region, otherwise peculiarly uninviting, a deep interest for the ornithologist. But repeatedly to lay on our back on a muddy road beneath a conglomeration of machinery to repair or adjust some injury, did much to draw our attention from the bird life. The road improved as we approached Los Baños, and we hoped for better times to Dos Palos, but this section eclipsed all that we had traversed. A dozen times we came to a complete stop, for to continue through the ponds, sloughs, and deep hollows of what only in extreme courtesy could be called a road, seemed impossible. Covered with mud we finally emerged from the swamp and entered the old Mexican town above named. Two miles further on, at Colony Center, the country changed from worst to best. Smooth roads, lined with tall shade trees, led by prosperous farms with their fields of grain, orchards and dairy lands. Numerous bird forms flitted about, while from many a swaying roadside bough the Bullock Oriole had hung its dainty basket of horsehair. A pretty ride into Firebaugh was marred only by storm clouds which soon overcast the sky, and we were forced by heavy rain to halt at this town, which stands on the west bank of the San Joaquin River.

May 12.—To Kings River, 76 miles. Additional species, 10.

An almost steady downpour continued last night, causing the roads to be so slippery that we deemed it inadvisable to continue until noon. Several hours were spent overhauling our gasoline wagon, and later we rambled over the broad willow-covered flat which banks the river on both sides. Never have I seen any locality equal this for the abundance of the House Finch, which was nesting everywhere. Many Bullock Orioles were building in the oaks and willows, a Western Tree Swallow's nest disclosed two

eggs and one newly-hatched young, while the well-feathered family of a Red-shafted Flicker was occupying a cavity in a tall dead stump. In exploring this the writer seriously cut his hand with a camp ax, which closed operations for the day. At noon we were on the road again, covering the thirty odd miles which lie between Firebaugh and Madera. This stretch of alkali wasteland is less swampy than the region crossed to the north, and water birds were correspondingly less numerous. Owing to the fact that we travelled with greater speed and less noise than by the usual method, we found we could approach much nearer animal life along the road. Turkey Vultures that we often came upon while they were feeding would scarcely fly when we passed them, and on several occasions we sped by a Swainson Hawk or some equally large bird sitting on a fence-post. Near Madera we came upon a Mexican Horned Lark feeding a juvenile in the center of the road. The parent took flight, but before we could stop, the youngster passed from sight beneath us but was luckily unhurt. This is the earliest date we know of for fully-fledged young.

As we approached Madera the fertile country appealed strongly to us, after crossing the broad stretch of alkali country. In an orchard near town our list was increased by the appearance of that flexible-throated songster, the Western Mockingbird. Between Madera and Fresno the country becomes very dry and barren, but from the latter place southward lies the richest portion of the whole valley. Dusk found us camping in the shade of some mighty oaks on the Kings River, two miles south of Kingsbury. To the east, where this river has its source, the Sierras form a continuous wall and reach their highest point in Mount Whitney. The long line of towering peaks in their snowy grandeur recalled the sparkling torrents, crystal lakes, and vast forests of these great mountains, with a bird life possessing for the student a fascination which no other region quite equals.

May 13.—To Visalia, 17½ miles. Additional species, 7.

Before leaving Kings River to-day I had some opportunity to observe the birds about the camp. A pair of Long-tailed Chats, by their noisy chatter and earnest call-notes, proclaimed too prominent an interest in a clump of low bushes where the just completed

nest proved to be. A puzzling find was placed in a niche of a tree, built warbler-style and feather-lined, but there was no sign of ownership. Nearby a Heermann Song Sparrow's nest showed eggs and a Spurred Towhee's contained young.

Continuing southward we passed Goshen Junction, and thence eastward through Visalia. We little thought as we went bounding out of the latter town that we were destined to spend a full week within its borders. Yet, such is automobiling, for when two miles out, a piece of the machinery, no doubt previously strained in the swamp country, gave way and left us stranded at the roadside. After being towed back to town, and telegraphing East for a duplicate part, we comfortably settled our camp in the leafy shades of a large orchard and endeavored to convince ourselves that this was the very place we had been looking for.

May 14 to 21.—Visalia. Additional species, 8.

Visalia lies in an open forest of oaks through which glides the broad St. Johns River, besides a host of minor streams. While the banks of the river and some of the streams were heavily wooded, others were only fringed with a low growth of willows overhung with blackberry vines. As would be expected in such a fertile country as this, edging the foothills, we found bird life abundant. Nearly all the species seen on the trip were again encountered and many new ones. Almost everywhere the air rang with bird song, and the longer we remained the less we regretted our enforced stay. One species which interested us particularly,—not on account of its rarity, for it was very abundant, but for the reason that our previous acquaintance with it had been very slight,—was the Western Blue Grosbeak. To me this bird seems a strange combination of un-grosbeaklike characteristics. The male and female are not greatly unlike a pair of Bluebirds in size, coloration and flight; while the nest, and also the eggs, closely resemble those of the Lazuli Bunting. The nest, placed in weed thickets, neatly fastened to the stalks, from two and a half to four feet up, is compactly made of grasses and weed stems and lined with horse hair, the nest cavity averaging three inches wide by one and three quarters deep. At seven o'clock one morning I noticed a pair which were carrying the initial stems to a weed clump along Mill Creek, so I was able to determine just how

long it took to build a nest. This one was finished with a thick lining of horsehair at half past five in the afternoon of the following day. Another nest was found only a few feet from the main tracks of the Santa Fé Railroad over which the overland trains were tearing by day and night, while a third was in a thicket of nettles, a rather clever barricade. The bird is a late breeder, as all nests examined contained either the full complement of three eggs in a fresh state, or incomplete sets, while there were empty nests in various stages of construction.

My favorite grounds were in the cool shades along the St. Johns River, for the thermometer has an awkward habit here of running up as high as 114° F. on summer days which we found very destructive to ambition. One morning, by the river, I was agreeably surprised to see, eyeing me over the edge of a twig structure about forty feet up in an oak, a majestic female Western Red-tailed Hawk. The tree was peculiarly hard to ascend, and the nest was placed in the most inaccessible part. On the following day I returned with my brother, who after some deliberation started up the trunk. The hawk refused to stir, however, until he was less than twenty feet distant. While I was meditating on the probable style of the egg markings I was rudely awakened by an exclamation of disgust as my brother announced that the nest was empty, which was wholly unexpected considering the late date.

During our visit I located many bird homes but all belonged to the more common species; half a dozen warbler abodes containing eggs in various stages proved to be those of *Dendroica aestiva brewsteri*.

May 22.—To Bakersfield, 93 miles. Additional species, 2.

The trip to-day was of little importance, ornithologically or otherwise. After leaving the orange groves of Porterville, which lies twenty-nine miles southeast of Visalia, the country became more and more barren. At Famoso we entered a desert, sparsely covered with a low growth of shrubs, which extended unbroken to the mountain ranges in the hazy distance. Horned Toads and Horned Larks were the only inhabitants to present themselves, and after a run of twenty miles Bakersfield, like an oasis, loomed up in the distance. The great Kern River, which courses through

the town from east to west, brings a fertility to the section which has been greatly enhanced by man.

May 23.—To Gorman Station, 60 miles. Additional species, 2.

We started at exactly noon to-day by the town clock; soon after the habitations on the outskirts faded away and we again went forth into the desert country. A large curious racing lizard (*Crotaphytus wislizeni*) that scampered along with us at an amazing speed was very common. As we sped along myriads of grasshoppers took wing, flying just about high enough to be scooped into the moving car. Hundreds lit on the radiator, which was intensely hot from the heat above as well as below, and perished. Horned Larks remained our only bird friends, but they made up in abundance for what the avifauna lacked in variety. After leaving Rose Station we began the ascent of the great range of mountains which rose before us on the south. Owing to the absence of sign-boards and the lack of information imparted by the way-house keepers, who looked askance at a steed which required neither a barn nor hay, we made a mistake, and instead of taking the newly built road, we took an old one leading up the cañon. This was more direct but very steep in places, to ascend which it was necessary to do what is termed 'jumping.' The engine is run at the highest speed and the power quickly thrown in, which causes the car to bolt ahead. In this way, by degrees, we went up until suddenly the machine, unable to proceed with the load, started down the grade, and before the brakes could be applied, veered to the side of the narrow road and hovered on the brink of the precipice. I can still see that little stream curling along perhaps a thousand feet below and nothing between but space. Through sheer luck we were able, at the critical point, to turn the automobile in on the road, the wheels just rolling along the edge of the cliff. But the experience of that awful moment taught us a lesson never to be forgotten. After stripping the car of its burden, which we carried to the top of the grade, and reloading, we proceeded on our way.

The Fort Tejon country, a famous landmark in the early ornithological history of California, was perhaps the most interesting on the trip; here the cool green meadows and mountain timber, with the attendant bird life, were in striking contrast with the arid

valley lands we had passed. Such birds as the Lawrence Goldfinch and Southern White-headed Woodpecker were typical of the region, although lower zone species, as the Bullock Oriole and the House Finch, were also in evidence. About dusk we made the summit (elevation 4433 feet), and a little later pulled up at Gorman Station (elevation 3500 feet).

May 24.— To Los Angeles, 117 miles. Additional species, 6.

A large part of to-day's run was over a broad rolling plateau, timbered in spots and interspersed with ponds and an occasional lake, many of which, owing to the exceptional rainfall of the past season, existed for the first time in years. Various water birds sported on the surface of most of them. Several coyotes lying in the sun by the road were rudely awakened and headed with all speed for the timber, while the number of American Ravens seen soon dispossessed us of the idea that the bird is to be considered at all rare in the region. One stretch of country between Meenach (elevation 3039 feet) and Fairmount, known as Antelope Valley, with its heavy growth of tree yuccas (*Yucca arborescens*) and Spanish daggers (*Hesperoyucca whipplei*) had a truly semitropical appearance. Near Elizabeth Lake (elevation 3700 feet), along an unused road, I found, with parent incubating, five eggs of the Pasadena Thrasher. Four proved to be well advanced in incubation while the fifth egg, which was perfectly fresh, was clawed by the bird in leaving, the shell being very fragile, as seems usual with these 'extra' eggs. The manner of nesting in this case was in nowise different from that of the bird of our more northern woods.

At the head of a narrow brushy cañon known as the San Francisco, we started down the final grade. Some person with a fascination for figures has said that the stream is crossed fifty-three times on the way, and personally I believe the count is not far from accurate. We observed a number of White-throated Swifts flying about the tall rocky cliffs which tower above the road, and which undoubtedly afforded them nesting sites. Civilization and lower-zone bird life marked the ride from Saugus, at the foot of the grade, to Los Angeles, which was reached in time to get conveniently located.

May 25 to 31.— Los Angeles and vicinity. Additional species, 9.

During our stay we made runs to many of the nearby towns, as Long Beach, San Pedro, Santa Monica, Pasadena, etc., but found but little new in the bird line. On the whole I do not consider the sections we visited blessed with anything like the abundance and variety of bird life we have in similar localities about San Francisco, and the timber for the most part, after leaving the Tehachapi Mountains, was of a very scrubby character. We found a new bird friend in the Hooded Oriole, which was abundant about the parks of Los Angeles as well as in the adjacent territory. A very pleasant call was made on Mr. Joseph Grinnell at Pasadena, where "birdology" was reviewed for some time. I found our friend Grinnell with a strong leaning towards mammalogy, and his collection, particularly of the smaller species, is about the finest I have ever seen. The rest of the afternoon was put in with ostriches at the Cawston Farm. As I viewed these massive creatures, a number of which were setting on broad complements of those almost cast iron eggs, it occurred to me that such birds as these in our native wilds would work a terrible hardship on ornithologists and oölogists alike, looking for a series.

June 1.—To San Buenaventura, 77 miles. Additional species, 1.

Our journey to-day, for the most part, led us through a mountainous country, the major portion of which was but sparsely wooded. Coming down from Calabassas we encountered a large flock of Turkey Vultures feeding at the roadside, but as these had been of common occurrence on the trip they excited no more than ordinary interest. As we drew nearer, however, we found a much larger bird among them which we immediately recognized as the "king of the fliers," the great California Condor. This particular individual was as languid in taking flight as the smaller birds of the flock and afforded us, on foot and wing, an exceptional view for some time.

A succession of up and down grades finally brought us to San Buenaventura where the night was spent. This was the last point where we found the Hooded Oriole and Western Mockingbird, although they may perhaps occur further north.

June 2.—To Santa Barbara, 31 miles. Additional species, 1.

The river bridge was down at San Buenaventura but after some

manœuvring we succeeded in making the crossing. The road leads up from the river over a thickly wooded ridge where we found the *Phainopepla* very common. Four eggs of the Anthony Towhee, which had the appearance of advanced incubation, were also noticed in a nest a few feet up among clinging vines on a tree trunk. Santa Barbara was reached at 4.45 P. M., we having been three and a half hours on the way.

June 3.—To Santa Maria, 85 miles. Additional species, 1.

To-day's route took us along the coast as far as Gaviota, and in this district we noted the Roadrunner as by no means uncommon. At Gaviota we struck inland, through a winding pass of the same name, into the Santa Ynez and Los Olivos country. The region is very fertile and heavily oaked, and such birds as the Desert Sparrow Hawk, California Jay, Red-shafted Flicker, California Woodpecker, Western Bluebird, Black-headed Grosbeak, and others which frequent these woods, were found in abundance. For a second time, near Los Olivos, the California Condor was seen, which inclines one to the belief that the bird is really more common than is supposed. As before, the bird was among a flock of the smaller species. The day's run was ended at Santa Maria.

June 4.—To San Luis Obispo, 28 miles. Additional species, 1.

Troubles with the carbureter caused a late start and frequent stops on the trip to-day. We ran out of the rolling country at Arroyo Grande and thence westward to the seaside resort of Pismo. The road skirts the broad level beach and then carried us along high rocky cliffs, while below us there lay as a poet¹ has said,

Stretching out in endless line like regiments of war,
The snow-plumed waves in rank and file were charging on the shore
With a thunderous roar and echo deep as cannon in the fray,
While rose along the fighting line the battlecloud of spray.

But before long a damp chilling fog enveloped us and we, glad to leave scenery and sentiment, headed with all speed along the road which, leading in a northeasterly direction, brought us into San Luis Obispo.

¹ Y. S. Notlim.

June 5.—To the First Crossing of the San Antonio River, 55 miles. Additional species, 1.

A short distance out of San Luis Obispo a summit of some height is reached and the country becomes heavily wooded, principally with oaks, and supports an abundant bird life, the California Thrasher being among the most numerous species. At San Miguel we had intended to take a road to the east via Indian Valley, a detour of thirty miles or more, in order to evade the sandy tracts along the Salinas River, but we were inveigled by a resident of the town to take a much shorter route to the west on which, he informed us, but one small stream was to be crossed. Alas! we had unknowingly placed our faith in that arch enemy of the motorist, the stable-keeper. A really fine road led us away from the town and we bowled along merrily for a dozen miles or so until, after a sudden descent, we were dumped, almost before we knew it, in the broad sand beds of the Nacimiento River. Being rather quick-sandy, the machine, from its weight, sank to the hubs, and even with the entire load off we were unable to extricate it. Luckily a camping party with a pair of horses came to our aid, and after considerable preliminary work we reached the opposite bank. We had proceeded but a few miles when we were both surprised and disgusted to come to the banks of another bridgeless river, more formidable to ford than the last. Every effort was made to shoot the empty auto across with a flying start but it proved a failure and stuck in the sandy river bottom. We awaited the campers, who were following, and who again delivered us, after which a general camp was made on the west bank for the night. Words failed, however, to express our amazement when they informed us that the San Antonio required to be crossed twice more, and the possibilities of a serious breakdown in this almost uninhabited country made these troublesome tidings hang like a cloud of gloom over the evening camp-fire.

June 6.—To Salinas, 93 miles. Additional species, 1.

Together with the campers, we set forth at daybreak this morning, determined to put the river crossings on the right side of us at the earliest possible moment. The appearance of the third ford was by no means cheering; the water, several feet in depth, did not deter us, but the sand was very soft and deep. Our friends

preceded us and, to cap the climax, one of their horses became balky in mid-stream, leaving us all in a rather serious predicament. One of the party rode bareback to Pleyto, the nearest town, where a plow-team was engaged, with the aid of which our various vehicles reached the opposite shore in safety. During the interim I took advantage of the occasion to reconnoiter along the river banks. Besides the recurrent species I noticed a new bird in the Rock Wren, which was rather numerous. The last crossing of the San Antonio, at Pleyto, was easily made on the run, and without a barrier before us we proceeded to make up for lost time. Becoming short of lubricating oil we were fortunately able to obtain some from an 'up-to-date' farmer who possessed a gasoline engine. Jolon, about the highest point, was reached, and some miles further on a sharp descent was made into the broad, wind-swept Salinas Valley. A sand-storm of a nature that made travelling almost impossible, continued until we passed Soledad. These twenty miles through an exceptionally barren country were the most dismal on the trip, scarcely any life being visible. From Soledad, cold moist fog replaced the sand and, wrapped in blankets, we sped into Salinas.

June 7.— To Pacific Grove, 20 miles. Additional species, 1.

What was intended to be a short side trip, but which proved to be a long one, was taken this morning. The spin to Pacific Grove, which lies on the southern end of Monterey Bay, was only a matter of an hour or so, but when we arrived at the very door of the bungalow we were to occupy the transmission shaft, probably weakened in river fording, broke, and with a repetition of our Visalia experience at hand I complacently reserved sufficient pages in my note book for a week's observations on Pacific Grove bird-ways.

June 8 to 15.— Pacific Grove. Additional species, 19.

The 'Grove,' as the town is commonly called, is prettily hid away among an extensive and dense growth of patriarchal pines, on a peninsula which juts into the sea. Salmon fishing, when the weather allowed, was indulged in and frequent rambles were made to all points of the compass. The extremely foggy weather, which at the Grove obscures the sun for days, imparts a gloomy, solemn aspect to the pine woods, the dampest and mossiest woodland I know of, but notwithstanding the unpropitious weather

conditions the locality is rich in cheery bird life. Most in evidence were the Coast Jay, Santa Cruz Chickadee, California Bushtit, Point Pinos Junco, and the Russet-backed Thrush, while many other species occurred in less numbers. Along the Carmel River, less than a dozen miles south, where the pines were wholly absent, we found most of the above species lacking, and in place of them were the lower-zone birds, such as we had met with during the greater part of our coastal journey. A local list for the week gave us forty-three species.

June 16.—To Salinas, 20 miles. Additional species, 0.

Our belated casting arrived this morning and after installing it we had sufficient time to make Salinas.

June 17.—To San Francisco, 126 miles. Additional species, 0.

The closing run of the trip was through a country with which I was previously familiar but the life zones being the same as in regions already traversed, we failed to add any new species to the list. San Francisco was entered about dusk and the pioneer ornithological expedition propelled by power came to an end.

List of Species Observed.

It is surprizing that on a trip of over eleven hundred miles we did not meet with such common birds as *Empidonax difficilis*, *Nuttallornis borealis*, and various others. As this list pertains exclusively to this trip, only the species actually observed on it are included.

1. **Cephus columba.** PIGEON GUILLEMOT.—One seen while salmon fishing in Monterey Bay.
2. **Uria californica.** CALIFORNIA MURRE.—Several seen at Monterey and Pacific Grove.
3. **Larus occidentalis.** WESTERN GULL.—Seen at various points along the coast from Monterey southward.
4. **Larus heermanni.** HEERMANN GULL.—Common along the coast, —at Long Beach, Gaviota, Pacific Grove, etc.
5. **Sterna forsteri.** FORSTER TERN.—Abundant in the vicinity of Los Baños and Firebaugh.
6. **Hydrochelidon surinamensis.** BLACK TERN.—Common in the vicinity of Los Baños.
7. **Phalacrocorax penicillatus.** BRANDT CORMORANT.

8. *Phalacrocorax pelagicus resplendens*. BAIRD CORMORANT.— Both noted on Monterey Bay.
9. *Pelecanus erythrorhynchos*. AMERICAN WHITE PELICAN.— Immense flocks noted near Los Baños and Firebaugh; also seen near Gorman Station.
10. *Pelecanus californicus*. CALIFORNIA BROWN PELICAN.— A number seen at Long Beach.
11. *Querquedula cyanoptera*. CINNAMON TEAL.— Common about Los Baños and Firebaugh.
12. *Dafla acuta*. PINTAIL DUCK.— Several seen south of Los Baños.
13. *Plegadis guarauna*. WHITE-FACED GLOSSY IBIS.— A large band of ibises, seen near Gorman Station, supposed to be this species.
14. *Ardea herodias herodias*. GREAT BLUE HERON.— Found abundantly in the San Joaquin Valley in suitable localities from Stockton to Porterville.
15. *Butorides virescens anthonyi*. ANTHONY GREEN HERON.— Noted near Stockton, and common along the streams about Visalia.
16. *Gallinula galeata*. FLORIDA GALLINULE.— Found east of Firebaugh.
17. *Fulica americana*. AMERICAN COOT.— Noted near Merced, Firebaugh, and Gorman Station.
18. *Steganopus tricolor*. WILSON PHALAROPE.— Los Baños.
19. *Recurvirostra americana*. AMERICAN AVOCET.— Los Baños.
20. *Himantopus mexicanus*. BLACK-NECKED STILT.— Very common about Los Baños and Firebaugh.
21. *Actitis macularia*. SPOTTED SANDPIPER.— Found along the streams at Visalia and also near Porterville.
22. *Ægialitis vocifera*. KILLDEER.— Met with off and on from Merced to Porterville, and also at Gorman Station and at several points on the coast.
23. *Lophortyx californicus californicus*. CALIFORNIA PARTRIDGE. This coast form we found scarce except about Monterey.
24. *Lophortyx californicus vallicolus*. VALLEY PARTRIDGE.— Where the road leading down the San Joaquin Valley edged along the foothills, we found this bird common, as at Kingsbury, Visalia, and Porterville; also noted it in the mountains at Lebec and Gorman Station.
25. *Zenaidura macroura*. MOURNING DOVE.— A common bird throughout almost the entire trip.
26. *Gymnogyps californianus*. CALIFORNIA VULTURE.— Two records, Calabassas and Los Olivos.
27. *Cathartes aura*. TURKEY VULTURE.— Common along practically the entire route.
28. *Circus hudsonius*. MARSH HAWK.— Seen at several points in the San Joaquin Valley,— Stockton, Merced, etc.
29. *Accipiter cooperi*. COOPER'S HAWK.— Noted at several points between Stockton and Madera.

30. *Buteo borealis calurus*. WESTERN RED-TAILED HAWK.— Seen at various points,—Porterville, Lebec, Gorman Station, Pacific Grove, etc., and found nesting at Visalia.

31. *Buteo swainsoni*. SWAINSON HAWK.—Merced and Firebaugh.

32. *Falco sparverius phalœna*. DESERT SPARROW HAWK.— Common in most places along the entire trip but particularly so in the dense oak woods about Los Olivos, Paso Robles, and Pleyto.

33. *Megascops asio bendirei*. CALIFORNIA SCREECH OWL.—Visalia.

34. *Speotyto cunicularia hypogœa*. BURROWING OWL.— Observed in San Joaquin Valley and found abundant in a rocky barren tract some miles south of San Jose.

35. *Geococcyx californianus*. ROADRUNNER.— Naples to Gaviota.

36. *Ceryle alcyon*. BELTED KINGFISHER.— Only two records of this common bird — Kingsbury and Carmel River.

37. *Dryobates villosus hyloscopus*. CABANIS WOODPECKER.— San Buenaventura and Pacific Grove.

38. *Dryobates pubescens turati*. WILLOW WOODPECKER.— Monterey.

39. *Xenopicus graviorostris*. SOUTHERN WHITE-HEADED WOODPECKER.— Between Fort Tejon and Lebec we saw at close range three individuals, although Mr. Joseph Grinnell, in his list of the birds of Fort Tejon (Condor, Vol. VII, p. 13), evidently failed to find them. While we took no skins it is probable the birds from this locality will be found to be this variety, with the larger bill.

40. *Melanerpes formicivorus bairdi*. CALIFORNIA WOODPECKER.— Noted at Kingsbury, Visalia, and Porterville in the San Joaquin Valley and coastwise, especially between Gaviota and Los Olivos where it was very abundant.

41. *Colaptes cafer collaris*. RED-SHAFTED FLICKER.— Where there was any timber in the San Joaquin Valley we found this bird, and likewise on the rest of the journey. A nest with almost full-fledged young was noted at Firebaugh.

42. *Chordeiles virginianus hesperis*. PACIFIC NIGHTHAWK.— A single bird seen near Merced.

43. *Aëronautes melanoleucus*. WHITE-THROATED SWIFT.— San Francisquite Cañon above Saugus.

44. *Calypte anna*. ANNA HUMMINGBIRD.— Visalia, Porterville, Pacific Grove, etc.

45. *Selasphorus alleni*. ALLEN HUMMINGBIRD.— Monterey.

46. *Tyrannus verticalis*. ARKANSAS KINGBIRD.— Excepting in the deserts and marshes this was the commonest bird in the San Joaquin Valley but scarce coastwise. A nest with three large young observed at Visalia.

47. *Myiarchus cinerascens cinerascens*. ASH-THROATED FLYCATCH-

ER.—Noted at Firebaugh, Visalia, Porterville, Lebec, and Gorman Station. It also occurs coastwise, but we did not find it on this trip.

48. *Sayornis nigricans*. BLACK PHOEBE.—Common throughout most of the trip. Nearly every bridge had its pair of these birds, and about Visalia I noticed about half a dozen nests with eggs placed in sluice boxes through which the water coursed uncomfortably close to the mud-made domiciles.

49. *Contopus richardsoni richardsoni*. WESTERN WOOD PEWEE.—Not uncommon in the higher ranges — Lebec and Gorman Station — as well as in timbered districts in the lower valleys — Visalia, Pacific Grove, etc.

50. *Otocoris alpestris actia*. MEXICAN HORNED LARK.—Abundant on the treeless areas of the San Joaquin Valley.

51. *Cyanocitta stelleri carbonacea*. COAST JAY.—Very common about Pacific Grove in the pine woods.

52. *Aphelocoma californica californica*. CALIFORNIA JAY.—Common from Kingsburg to Porterville in the San Joaquin Valley and in most places along the coast.

53. *Aphelocoma californica obscura*. BELDING JAY.—According to a new ruling the bird about Los Angeles (and southward), which we found fairly common, has been separated from our northern species.

54. *Corvus corax sinuatus*. AMERICAN RAVEN.—Found from Gorman Station southeast to Elizabeth Lake.

55. *Corvus brachyrhynchos hesperis*. CALIFORNIA CROW.—Firebaugh and Pacific Grove, not very common.

56. *Xanthocephalus xanthocephalus*. YELLOW-HEADED BLACKBIRD.—Common along the slough near Stockton.

57. *Agelaius phoeniceus neutralis*. SAN DIEGO RED-WINGED BLACKBIRD.—Long Beach.

58. *Agelaius gubernator californicus*. BICOLORED BLACKBIRD.

59. *Agelaius tricolor*. TRICOLORED BLACKBIRD.—Both noted at various points from Stockton to Porterville, breeding (eggs and young).

60. *Sturnella neglecta*. WESTERN MEADOWLARK.—Observed commonly and pretty generally throughout the trip in open country except marsh and desert lands.

61. *Icterus cucullatus nelsoni*. ARIZONA HOODED ORIOLE.—Found common in Los Angeles and vicinity and in places as far north as San Buenaventura.

62. *Icterus bullocki*. BULLOCK ORIOLE.—Wherever there were trees in the San Joaquin Valley we found this oriole very abundant but it was scarce along the coast. Found breeding commonly at Firebaugh, Colony Center, Visalia, etc.

63. *Euphagus cyanocephalus*. BREWER BLACKBIRD.—A common bird coastwise but less so inland where it was noted at Merced and Gorman Station.

64. *Carpodacus purpureus californicus*. CALIFORNIA PURPLE FINCH.—Firebaugh and Pacific Grove; not very abundant.

65. *Carpodacus mexicanus frontalis*. HOUSE FINCH.—The commonest bird on the trip; we found it nearly everywhere.
66. *Astragalinus tristis salicamans*. WILLOW GOLDFINCH.—Rather uncommon; found at Kingsburg, Visalia, Porterville, and Pacific Grove.
67. *Astragalinus psaltria hesperophilus*. GREEN-BACKED GOLDFINCH.—More abundant than the preceding species. Found in the wooded sections of the San Joaquin as far as Porterville, and at various points on the coast (Pacific Grove, etc.).
68. *Astragalinus lawrencei*. LAWRENCE GOLDFINCH.—One seen at Bakersfield, very numerous from Fort Tejon to Gorman Station, and less so on the coast between Gaviota and Los Olivas.
69. *Passer domesticus*. EUROPEAN HOUSE SPARROW.—Common about the towns.
70. *Chondestes grammacus strigatus*. WESTERN LARK SPARROW.—Wherever there were oak woods on the trip we were pretty sure to find this a common species.
71. *Zonotrichia leucophrys nuttalli*. NUTTALL SPARROW.—Common at Pacific Grove.
72. *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW.—Noted at Visalia, Porterville, and Pacific Grove.
73. *Junco hyemalis pinosus*. POINT PINOS JUNCO.—Very common about Pacific Grove in pine woods.
74. *Melospiza cinerea heermanni*. HEERMANN SONG SPARROW.—Along streams in the San Joaquin Valley this song sparrow was a common bird.
75. *Melospiza cinerea santæcrucis*. SANTA CRUZ SONG SPARROW.—Pacific Grove and northward.
76. *Melospiza cinerea cooperi*. SAN DIEGO SONG SPARROW.—Long Beach, San Buenaventura, etc.
77. *Pipilo maculatus megalonyx*. SPURRED TOWHEE.—Found in the San Joaquin at Firebaugh, Kingsburg (breeding), Visalia, and Porterville.
78. *Pipilo maculatus atratus*. SAN DIEGO TOWHEE.—We noticed towhees which would be referable to this form about Los Angeles although its claim to subspecific rank is disputed.¹
79. *Pipilo maculatus falcifer*. SAN FRANCISCO TOWHEE.—Found at various points from Pacific Grove north.
80. *Pipilo crissalis crissalis*. CALIFORNIA TOWHEE.—Kingsburg, Visalia (breeding), and Porterville in the San Joaquin Valley. Very common along the coast from Pacific Grove north.
81. *Pipilo crissalis senicula*. ANTHONY TOWHEE.—Abundant along the southern coast and as far as we went inland (Pasadena, etc.).

¹This form is now conceded to be not separable from *megalonyx*. Cf. Ridgway, Condor, VIII, No. 4, p. 100, July 15, 1906.—EDD.

82. *Zamelodia melanocephala capitalis*. CALIFORNIA BLACK-HEADED GROSBEAK.— Found pretty generally throughout the trip; common.
83. *Guiraca cærulea lazula*. WESTERN BLUE GROSBEAK.— Common about Visalia (breeding) to Porterville.
84. *Cyanospiza amœna*. LAZULI BUNTING.— Visalia and Porterville.
85. *Progne subis hesperis*. WESTERN MARTIN.— Stockton.
86. *Petrochelidon lunifrons lunifrons*. CLIFF SWALLOW.— Common in suitable places throughout the trip.
87. *Hirundo erythrogastra palmeri*. WESTERN BARN SWALLOW. This was most abundant inland while the preceding species was most abundant along the coast.
88. *Iridoprocne bicolor vespertina*. WESTERN TREE SWALLOW.— Firebaugh and Visalia.
89. *Riparia riparia*. BANK SWALLOW.— San Pedro.
90. *Phainopepla nitens*. PHAINOPEPLA.— Above Saugus (San Francisquite Cañon) and San Buenaventura.
91. *Lanius ludovicianus gambeli*. CALIFORNIA SHRIKE.— Common in the San Joaquin Valley but less so along the coast.
92. *Vireo gilvus swainsoni*. WESTERN WARBLING VIREO.— Kingsburg and Visalia.
93. *Dendroica æstiva brewsteri*. CALIFORNIA YELLOW WARBLER.— Abundant in suitable localities throughout the trip; found breeding commonly about Visalia.
94. *Geothlypis trichas arizela*. PACIFIC YELLOWTHROAT.— One record, Visalia.
95. *Icteria virens longicauda*. LONG-TAILED CHAT.— Kingsburg (breeding), Visalia, and Porterville.
96. *Wilsonia pusilla pileolata*. PILEOLATED WARBLER.— Pacific Grove.
97. *Mimus polyglottos leucopterus*. WESTERN MOCKINGBIRD.— Noticed at Madera, and found commonly about Los Angeles but not further north on the coast than San Buenaventura.
98. *Toxostoma redivivum redivivum*. CALIFORNIA THRASHER.— Oresta, Pacific Grove, etc.
99. *Toxostoma redivivum pasadensis*. PASADENA THRASHER.— Elizabeth Lake (breeding).
100. *Salpinctes obsoletus*. ROCK WREN.— Second crossing of the San Antonio River.
101. *Troglodytes ædon parkmani*. PARKMAN WREN.— Monterey.
102. *Sitta pygmæa pygmæa*. PYGMY NUTHATCH.— Pacific Grove.
103. *Bæolophus inornatus inornatus*. PLAIN TITMOUSE.— Nipomo and second crossing of the San Antonio River.
104. *Parus rufescens barlowi*. SANTA CRUZ CHICKADEE.— Pacific Grove, abundant.
105. *Chamæa fasciata henshawi*. PALLID WREN-TIT.— San Francisquite Cañon and Los Angeles (breeding, young).

106. *Chamæa fasciata intermedia* Grinnell or *rufula* Ridgway. INTERMEDIATE WREN-TIT (OR RUDDY WREN-TIT).—Pacific Grove and Monterey.

107. *Psaltriparus minimus minimus*. BUSH-TIT.—Pacific Grove (breeding, young).

108. *Psaltriparus minimus californicus*. SACRAMENTO BUSH-TIT.—Firebaugh (breeding), Visalia.

109. *Hylocichla ustulata ustulata*. RUSSET-BACKED THRUSH.—Visalia and Pacific Grove.

110. *Hylocichla aonalaschkæ slevini*. MONTEREY HERMIT THRUSH.—Pacific Grove.

111. *Sialia mexicana occidentalis*. WESTERN BLUEBIRD.—Porterville, Lebec, Gorman Station, Pacific Grove, etc.

NOTES ON BIRDS OF SILVER CITY, NEW MEXICO.

BY JOHN T. SHARPLESS HUNN.

THE following field notes were recorded within a ten miles radius, taking Silver City as the center. The period of time covered was between the first of September and the sixth of May, during the years 1903-4 and 1904-5. Although I would be absent part of the time in one year, I always managed to be present during this interval in the succeeding year, consequently an observation was made every day within the period.

Silver City, the county seat of Grant County, is situated in a 'draw' at an altitude of about 5,300 feet. It is surrounded by low foothills that were once covered with juniper and scrub oak, but they have long since been denuded by the merciless Mexican woodcutter. Now, the hills lie bare and brown, save here and there for an oasis of 'cholla' cacti or a group of yuccas, and afford scant shelter for bird life. The principal streets of the city are lined with cottonwoods, and many of the residents make a pretence at gardening. This brings some few species into the town, but the scarcity of water and lack of reservoirs keep those that are less confiding at a distance.